

WHAT IS CLAIMED IS:

1. A sealer for cutting and sealing a conduit connecting a test sample device to a fluid receptacle containing a fluid sample, comprising:

an enclosure having an aperture and shield moveable between a first position covering said aperture and a second position not covering said aperture;

a moveable cutting element assembly having a home position located within said enclosure;

a motor for moving said cutting element assembly through said aperture to a deployed position wherein said cutting element assembly is positioned external to said enclosure at a position for cutting said conduit, wherein movement of said cutting element assembly through said aperture causes said shield to move to said second position, and wherein movement of said cutting element assembly from said deployed position to said home position causes said shield to move from said second position to said first position covering said aperture, whereby when said cutting element assembly is in said home position, said shield and said enclosure prevent inadvertent contact with said cutting element assembly.

2. The sealer of claim 1, wherein said cutting element assembly comprises a hot cutting wire supplied with current from a constant current source.

3. The sealer of claim 1, wherein said sealer is installed in an automated sample testing instrument and wherein said motor and said enclosure are constructed and arranged such that said motor drives said cutting element assembly relative to said enclosure in a direction having both vertical and horizontal components relative to said instrument, whereby adjustment of the

operation of said motor results in adjustment of the position of said cutting element assembly relative to said instrument in both horizontal and vertical directions.

4. The sealer of claim 1, wherein said sealer is installed in an automated sample testing instrument and wherein said cutting element assembly further comprises a cutting wire and a spring-loaded member adapted for engagement with said test sample device when said cutting element assembly is moved to said deployed position and wherein, when said cutting wire is in said deployed position, the engagement of said spring-loaded member with said test sample device urges said test sample device against a fixed structure in said instrument to thereby hold said test sample device in a fixed position while said cutting wire cuts and seals said conduit.

5. A sealer for cutting and sealing a conduit connecting a test sample device to a fluid receptacle containing a fluid sample, said sealer installed in an automated sample testing instrument, comprising:

a moveable cutting element assembly having a home position and a deployed position, said cutting element assembly comprising a cutting wire and a spring-loaded member adapted for engagement with said test sample device when said cutting element assembly is moved to said deployed position, and

a motor for moving said cutting element assembly from said home position to said deployed position;

wherein, when said cutting element assembly is moved to said deployed position, the engagement of said spring-loaded member with said test sample device urges said test sample

device against a fixed structure in said instrument to thereby hold said test sample device in a fixed position while said cutting wire cuts and seals said conduit.

6. The sealer of claim 5, further comprising a constant current source providing current to said cutting wire.

7. The sealer of claim 5, wherein said motor is constructed and arranged such that said motor drives said cutting element assembly relative to said enclosure in a direction having both vertical and horizontal components relative to said instrument, whereby adjustment of the operation of said motor results in adjustment of said cutting element assembly relative to said instrument in both horizontal and vertical directions.

8. A sealer for cutting and sealing a conduit connecting a test sample device to a fluid receptacle containing a fluid sample, said sealer installed in an automated sample testing instrument, comprising:

a moveable cutting element assembly having a home position and a deployed position, said cutting element assembly further comprising a cutting wire cutting and sealing said conduit when said cutting element assembly is moved to said deployed position, and

a motor for moving said cutting element assembly from said home position to said deployed position;

wherein said motor is constructed and arranged such that said motor drives said cutting element assembly relative to said enclosure in a direction having both vertical and horizontal components relative to said instrument, whereby adjustment of the operation of said motor

results in adjustment of said cutting element assembly relative to said instrument in both horizontal and vertical directions.

9. The sealer of claim 8, wherein said motor moves said sealer along a line in a vertical plane relative to said instrument, and wherein said line is inclined relative to a horizontal axis by an angle of between 20 and 70 degrees.

10. The sealer of claim 1, wherein said test sample device comprises a multi-well test sample card and wherein said conduit comprises a transfer tube for introduction of a fluid sample into said test sample card.

11. The sealer of claim 5, wherein said test sample device comprises a multi-well test sample card and wherein said conduit comprises a transfer tube for introduction of a fluid sample into said test sample card.

12. The sealer of claim 8, wherein said test sample device comprises a multi-well test sample card and wherein said conduit comprises a transfer tube for introduction of a fluid sample into said test sample card.